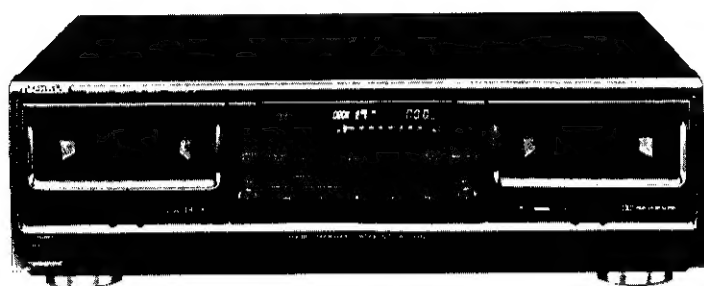


# Stereo Cassette Deck **RS-TR272**

## Operating Instructions



# Technics®



Before connecting, operating or adjusting this product, please read these instructions completely. Please save this manual.



RQT3812-G

Dear Customer

Thank you for purchasing this Technics product.  
For optimum performance and safety, please read these instructions carefully.

(For areas except Australia and N.Z.)

**CAUTION:**  
The AC voltage is different according to the area.  
Be sure to set the proper voltage in your area before use.  
(For details, please refer to the page 5.)

Accessories

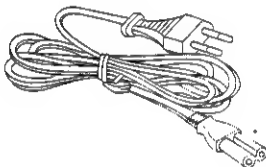
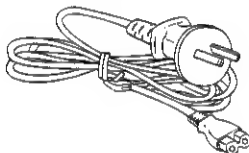


Please check and identify the supplied accessories.

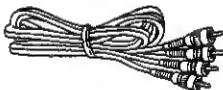
☐ AC power supply cord.....1

(For Australia and N.Z.)

(For others)



☐ Stereo connection cables .....2



☐ Power plug adaptor.....1  
(Not supplied for Australia and N.Z.)

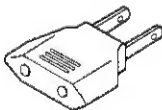


Table of contents

Before use	
Suggestions for safety .....	3
Front panel controls .....	4
Connections .....	5
Playback	
Playback .....	6
Series playback .....	8
To fast-forward or rewind the tape .....	9
Tape counter .....	9
Recording	
Recording (Deck 2 only) .....	10
Tape-to-tape recording .....	11
Reference	
Concerning cassette tapes .....	13
Maintenance .....	14
Technical specifications .....	14
Troubleshooting guide .....	15

## Suggestions for safety

### Placement

Avoid placing the unit in areas of:

- direct sunlight
- high temperature
- high humidity
- excessive vibration
- uneven surfaces (Place the unit on a flat level surface.)

Such conditions might damage the cabinet and/or other component parts and thereby shorten the unit's service life.

### Stacking

Never place heavy items on top of the unit or the AC power cord.

### Voltage

- It is very dangerous to use an AC power source of high voltage such as for an air conditioner.  
A fire might be caused by such a connection.
- A DC power source cannot be used.  
Be sure to check the power source carefully, especially on a ship or other place where DC is used.

### Power cord protection

- Avoid cuts, scratches or poor connection of the AC power cord, as this may result in fire or electric shock hazard.  
Excessive bending, pulling or slicing of the cord should also be avoided.
- Do not pull on the cord when you are disconnecting the power, as this could cause an electric shock. Grasp the plug firmly when you disconnect the power supply.
- Never touch the plug with wet hands or a serious electric shock could result.

### Foreign materials

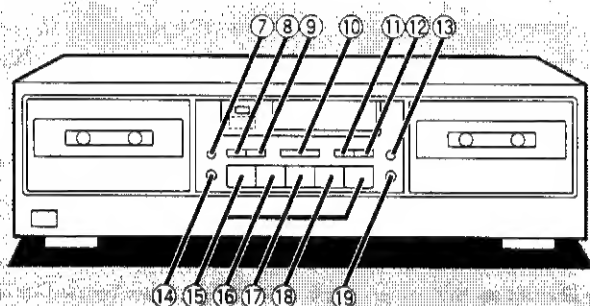
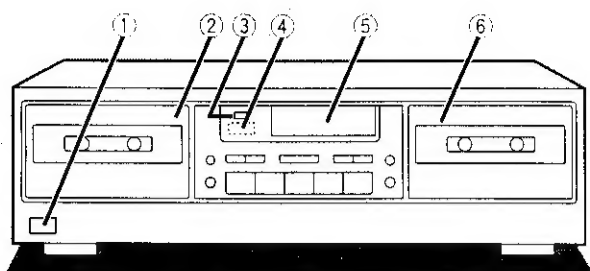
- Ensure that no foreign objects, such as needles, coins, screw-drivers etc., accidentally fall into the unit.  
Otherwise, a serious electric shock or malfunction could occur.
- Be extremely careful about spilling water or liquid on/into the unit, as a fire or electric shock could occur.  
(Disconnect the power plug and contact your dealer immediately if this occurs.)
- Avoid spraying insecticides onto the unit as they contain flammable gases which can be ignited.
- Insecticides, alcohol, paint thinner and similar chemicals should never be used to clean the unit as they can cause flaking or cloudiness to the cabinet finish.

### Service

- Never attempt to repair, disassemble or reconstruct the unit if there seems to be a problem.  
A serious electric shock could result if you ignore this precautionary measure.
- If a problem occurs during operation (the sound is interrupted, indicators fail to illuminate, smoke is detected, etc.) contact your dealer or Authorized Service Center immediately.
- Disconnect the power supply if the unit will not be used for a long time. Otherwise the operation life could be shortened.

### CAUTION!

**DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT IN CABINET OR IN ANOTHER CONFINED SPACE IN ORDER TO KEEP WELL VENTILATED CONDITION. ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION CONDITION TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING.**



## Front panel controls

- ① **Power "STANDBY" /ON" switch**  
(POWER, STANDBY /ON)  
Press to switch the unit from on to standby mode or vice versa.  
In standby mode, the unit is still consuming a small amount of power.
- ② **Cassette holder for deck 1**
- ③ **"STANDBY" indicator (STANDBY)**  
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.
- ④ **Remote control signal sensor**  
This cassette deck can be operated by using the remote control provided with a Technics amplifier or receiver. (For detailed information, refer to the operating instructions of the amplifier or receiver.)
- ⑤ **Display**
- ⑥ **Cassette holder for deck 2**
- ⑦ **Counter reset button (COUNTER RESET)**
- ⑧ **Synchro-start button (SYNCHRO START)**
- ⑨ **Tape-to-tape recording-speed button**  
(SPEED, NOR/HI)
- ⑩ **Tape deck select button (DECK 1/2)**
- ⑪ **Dolby noise-reduction button (DOLBY NR)**
- ⑫ **Reverse-mode select button (REVERSE MODE)**
- ⑬ **Rec pause button (● REC PAUSE)**
- ⑭ **Open button for deck 1 (▲ OPEN)**
- ⑮ **Rewind/fast-forward buttons (◀◀, ▶▶)**
- ⑯ **Reverse-side playback button (◀)**
- ⑰ **Stop button (■)**
- ⑱ **Forward-side playback button (▶)**
- ⑲ **Open button for deck 2 (▲ OPEN)**

## Connections

Before making connections, make sure that the power to this unit and all other system components is turned off first.

### (For areas except Australia and N.Z.)

Use a minus (—) screwdriver to set the voltage selector to the voltage setting for the area in which the unit will be used.

If the power supply in your area is 115 V or 120 V, please set the voltage selector as follows:

For 115 V: set to 110 V

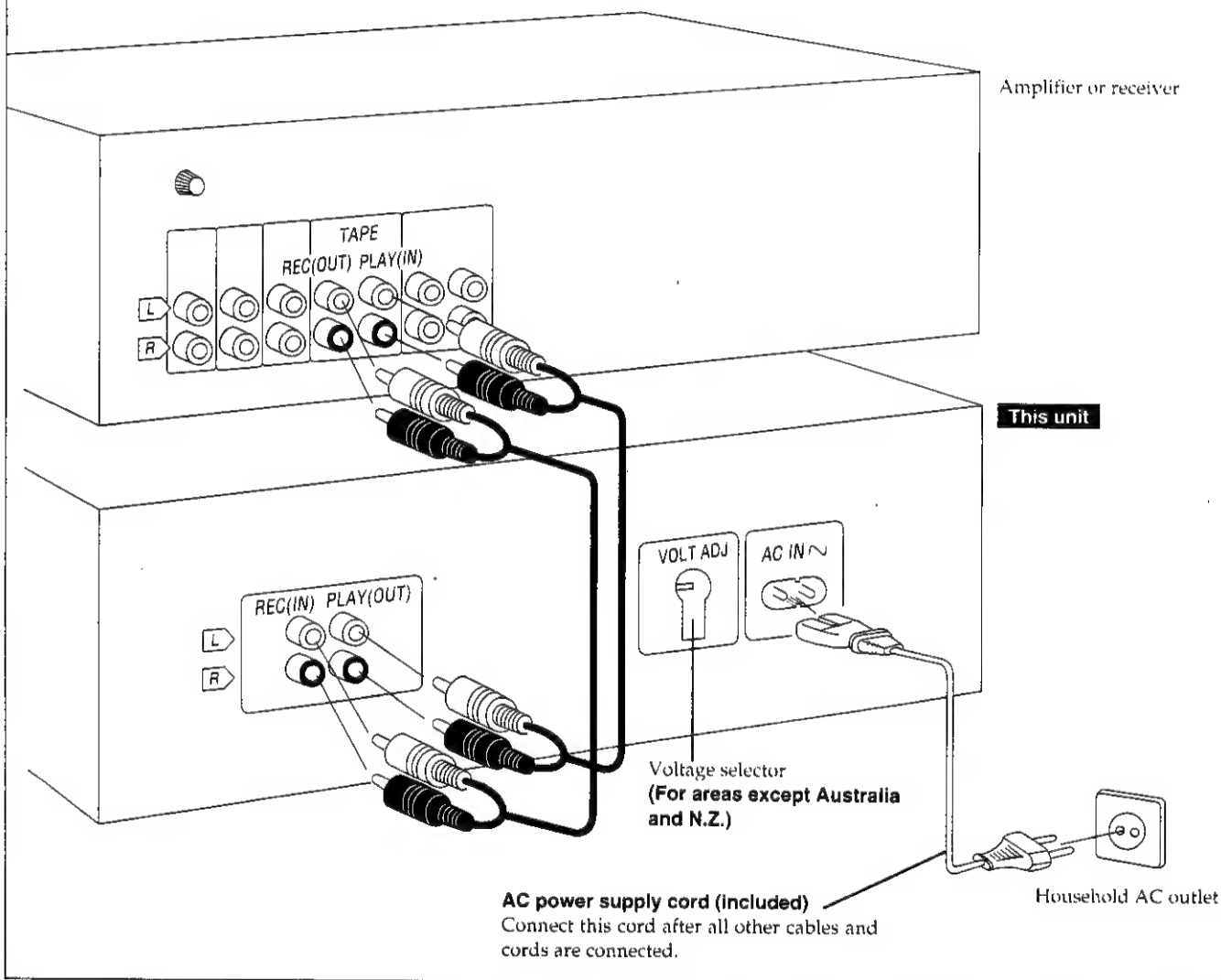
For 120 V: set to 127 V

Note that this unit will be seriously damaged if this setting is not made correctly.

### Stereo connection cables (included)

White (L)

Red (R)



### Placements hints

If this unit is placed near a receiver or a tuner, a "hum" noise may be heard during tape playback, recording, or AM reception of the receiver or the tuner.

If this occurs, leave as much space as possible between the units, or place them where there is the least amount of "hum".

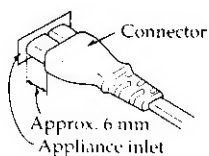
Avoid letting the cables touch each other as much as possible, otherwise noise will be generated.

### (For areas except Australia and N.Z.)

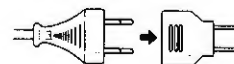
#### Insertion of Connector

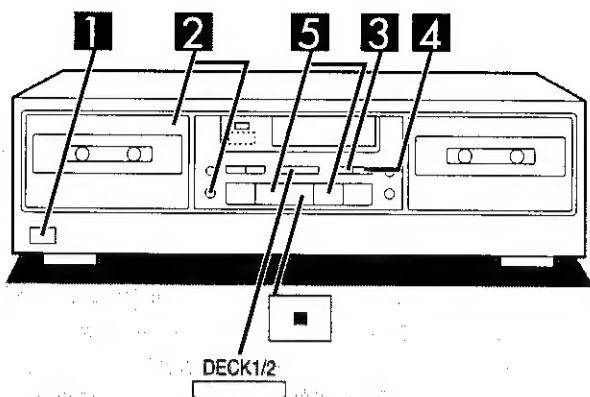
Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.

However there is no problem using the unit.



If the power plug will not fit your socket, use the power plug adaptor (included).





**1**

POWER

STANDBY

**2**

OPEN

Forward side      Reverse side

Tape opening facing downward.

**3**

DOLBY NR

**4**

REVERSE MODE

**5**

Indicates the side being played.

**A**

DECK 1/2

## Playback

Type of tape which can be played on this unit:

NORMAL POSITION/TYPE I	
HIGH POSITION/TYPE II	
Metal/TYPE IV	

The unit automatically identifies the type of tape.

The procedures described below are an example of playback on Deck 1.

- 1 Press POWER.**  
(The unit will switch on.)
- 2 Press ▲ OPEN on Deck 1, and then insert the cassette tape.**  
**Push the cassette holder closed by hand.**  
To play back on Deck 2, press ▲ OPEN for Deck 2.
- 3 Press DOLBY NR to select the appropriate noise-reduction system.**  
(Refer to "About the Dolby noise-reduction system" on page 7.)  
Each time the button is pressed, the indicator will change in the order: B → C → off.
- Select the same type as that used for recording. When playing back a tape which was not recorded using a Dolby NR system, press so that the indicators go off.
- 4 Press REVERSE MODE to select the appropriate reverse mode.**  
(Refer to "Reverse function" on page 7.)  
Each time the button is pressed, the indicator will change in the order: → ↔ → ∞.
- ↔ : One side only.  
↔ : Both sides repeatedly (up to 8 times).  
∞ : Both sides, once only.
- 5 Press ► (or ◀).**  
(Playback will begin.)  
► : To begin from the forward side.  
◀ : To begin from the reverse side.

### To stop playback

Press ■.

### To change the Deck to be used **A**

Press DECK 1/2 to select the Deck you want to play.

Each time the button is pressed, the indicator will change: DECK 1 ↔ DECK 2

(The indicator changes only if a tape is loaded in the other deck.)



## About the Dolby noise-reduction system

The Dolby noise-reduction system is designed to effectively reduce the annoying high-frequency "hissing" noise which can occur with cassette tapes. During recording, the system functions to increase the high-frequency sound level, and then, during playback, that same portion is weakened to bring it back to the previous level.

This unit includes two types of Dolby noise-reduction systems, the Dolby B NR-type and C NR-type.

### Dolby B-type noise-reduction

Noise is reduced to about one-third.

Use this system when playing back tapes recorded by the Dolby-B noise-reduction system, such as prerecorded music tapes, etc.

### Dolby C-type noise-reduction


Noise is reduced to about one-tenth.

Use this system for the recording and playback of sound sources that have a wide dynamic range and good tone quality, such as FM broadcasts of live performances, etc., and for playing back such tapes.




## About the Dolby HX-Pro headroom extension system

By functioning improve the maximum output level of the tape's high-frequency range, this system permits recording without a reduction in the level of the sound source's high-frequency range. In addition, by using the system in parallel with this unit's noise-reduction system, recording and playback with a greatly extended dynamic range is possible.




Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.

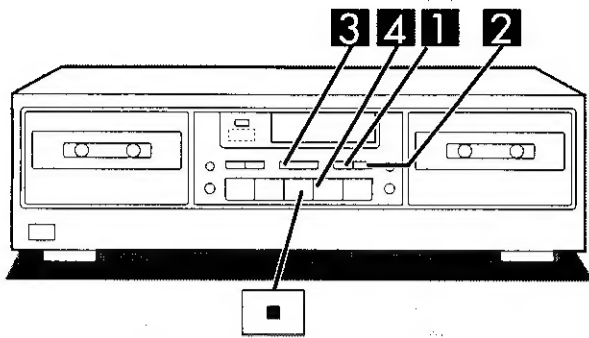
"DOLBY", the double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

## Reverse function

The reverse function on this unit has three modes (  ,  ,  ).

Read the descriptions below and select the mode as desired.

Mode	Tape travel
	Only one side of the tape (either the forward side or the reverse side) will be played, and operation will automatically stop when playback has been completed.
	Both sides of the tape will be played repeatedly eight times, and then operation will automatically stop. (If playback is begun from the reverse side, the forward side will be played seven times.)
	<b>When there is a tape in only one of the decks</b> Both sides of the tape will be played once, and then operation will automatically stop. (If playback is begun from the reverse side, the forward side will not be played.) <b>When there is a tape in each of the decks</b> The forward and reverse sides of the tape in Deck 1 will be played, followed by the forward and reverse sides of the tape in Deck 2, and after this operation is repeated eight times, operation will automatically stop. (If playback is begun from Deck 2, the tape in Deck 1 will be played seven times.)



<b>1</b>	DOLBY NR 	
<b>2</b>	REVERSE MODE 	
<b>3</b>	DECK 1/2 	
<b>4</b>		

## Series playback

Both sides of the tape in Deck 1 will be played, followed by both sides of the tape in Deck 2. (Repeated up to eight times.)

### Preparation

Load the tapes to be played into Deck 1 and Deck 2.

Note that for series playback it is not possible to select different types of Dolby NR for Deck 1 and Deck 2. It is recommended that you use two tapes which were recorded using the same type of Dolby NR (or both recorded without Dolby NR).

- 1** Press DOLBY NR to select the appropriate noise-reduction system.
- 2** Press REVERSE MODE to select the "↔" mode.
- 3** Press DECK 1/2 to select the Deck 1.
- 4** Press ▶.  
(Series playback will begin from the forward side of the tape in Deck 1.)

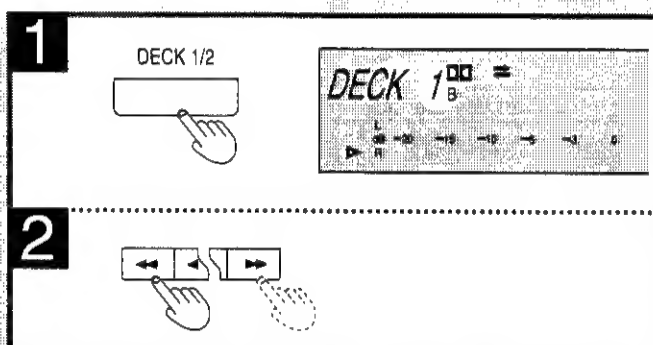
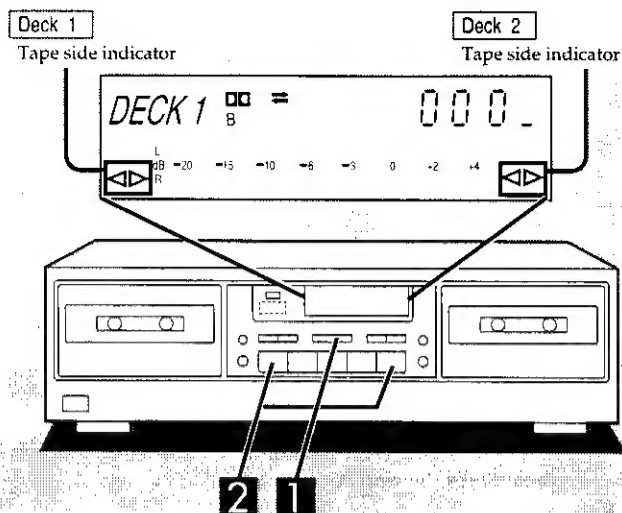
### For your reference:

It is also possible to begin series playback from the reverse side of the tape in Deck 1 or from Deck 2. (Refer to the tape travel table on page 7.)

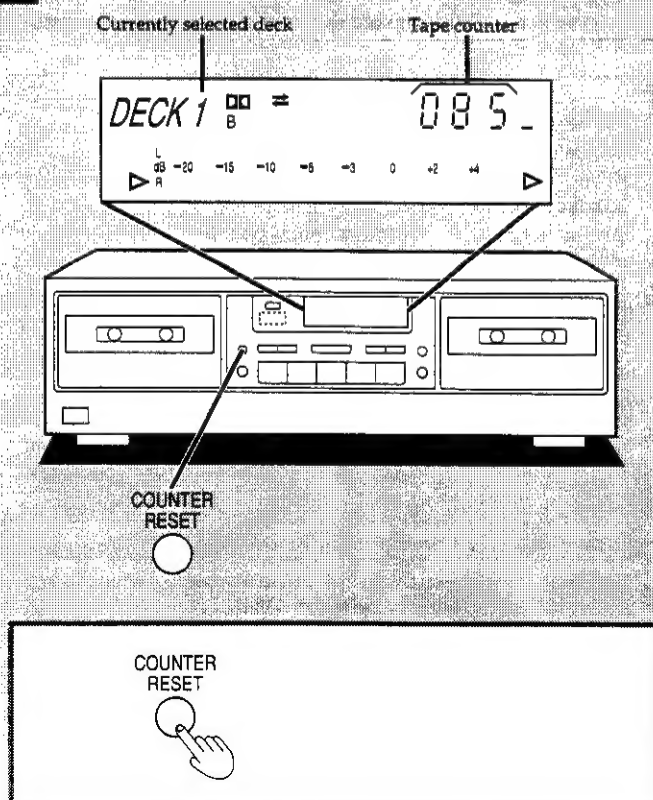
**To stop playback**  
Press ■.



# A



# B



## To fast-forward or rewind the tape

- 1 Press DECK 1/2 to select the Deck (1 or 2).
- 2 [In stop mode]  
Press ◀◀ or ▶▶ .

Because this unit is capable of playing back both sides of the tape, the operation changes in accordance with the direction of the tape side indicator.

Tape side indicator	Rewind	Fast forward
▶	◀◀	▶▶
◀	▶▶	◀◀

- Cassette tapes in Deck 1 and Deck 2 can be advanced or rewound at the same time.

**To stop fast-forward or rewind the tape.**  
Press ■.

## Tape counter

The tape counter indicates the amount of tape travel as a numerical value based on the number of revolutions of the tape hub. As you switch between Deck 1 and Deck 2, the tape counter shown on the display changes too.

### To reset the tape counter

**Press COUNTER RESET.**

The tape counter of the currently selected deck will revert back to "000", while that of the other deck will remain unchanged.

### For your reference:

When the tape is traveling in the reverse direction, the value displayed on the tape counter will count down. After "000" is reached, the display will switch to "999" and will then continue counting down.

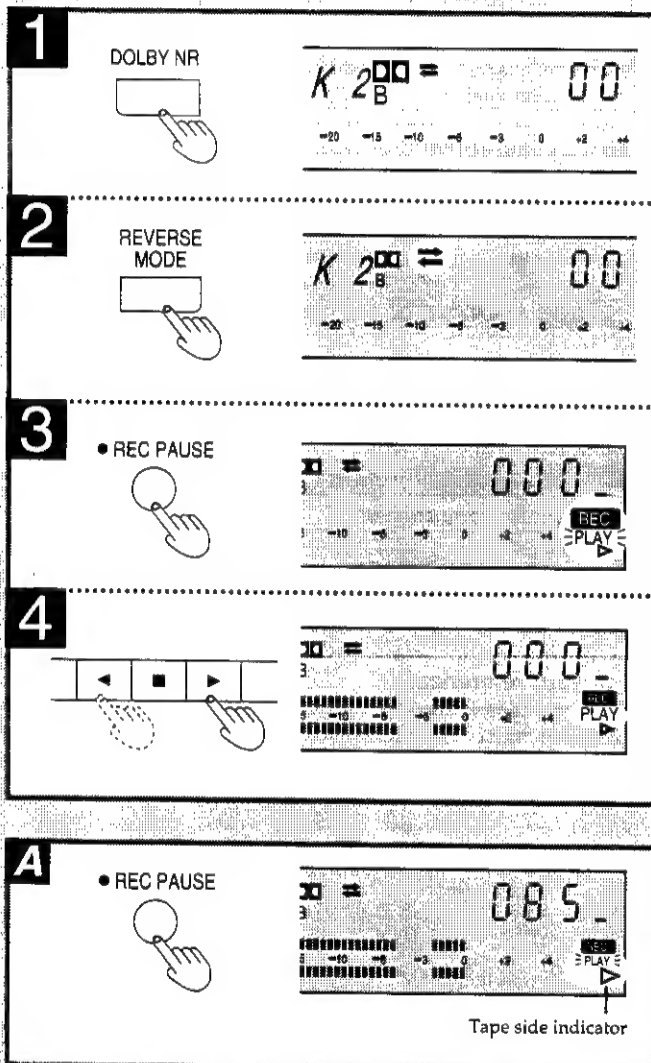
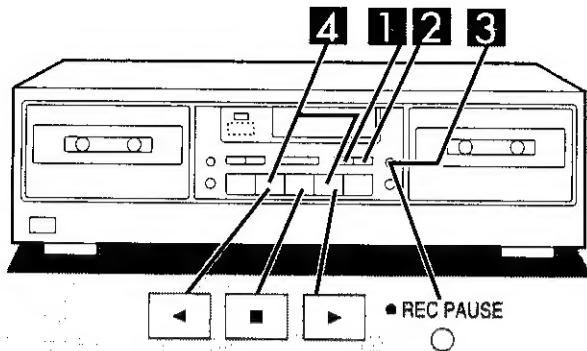
## Recording (Deck 2 only)

Type of tape which can be used for recording:

NORMAL POSITION/TYPE I	□
HIGH POSITION/TYPE II	○
Metal/TYPE IV	○

### Preparation

Load a tape which has been advanced to the end of the leader tape (the transparent part at both ends of the tape) into Deck 2.



- 1 Press **DOLBY NR** to select the appropriate noise-reduction system.

Each time the button is pressed, the indicator will change in the order: B → C → off.

When recording a tape without using a Dolby NR system, press so that the indicators go off.

- 2 Press **REVERSE MODE** to select the desired reverse mode.

Each time the button is pressed, the indicator will change in the order: → ↔ → ∞.

→ : Only one side will be recorded, and then operation will automatically stop.

↔, ∞ : Both sides (the forward side first, and then the reverse side) will be recorded, and then operation will automatically stop.

- 3 Press **REC PAUSE**.

(The unit will be in the recording stand-by mode.)

- 4 Press **▶** (or **◀**) to begin recording, and play the source to be recorded.

▶ : To begin recording from the forward side.

◀ : To begin recording the reverse side.

### Note

When recording on both sides of the tape, be sure to press the ▶ button.

### To temporarily stop recording

Press **REC PAUSE**.

### To resume recording

Press either **◀** or **▶**, corresponding to the side of the tape side indicator which is lit.

### To stop recording

Press **■**.

### For your reference:

The cassette deck automatically sets recording level.

### About the selection of the Dolby NR type

The Dolby NR effect can be obtained by using the same type of Dolby NR during both recording and playback.

Refer to the following table when selecting the type (either B or C).

Type B	Use this type when the deck on which the tape will be played back is equipped with only type B Dolby NR.
Type C	Use this type when the deck on which the tape will be played back is equipped with type C Dolby NR. (For example, when this unit is also going to be used to play back the tape.)

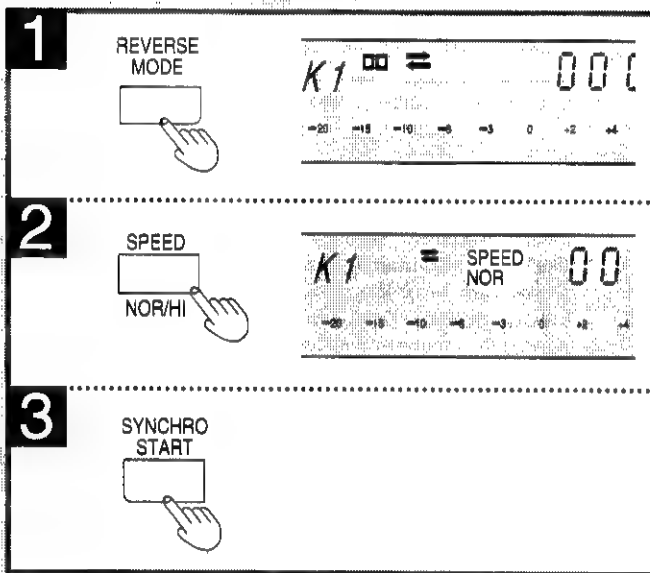
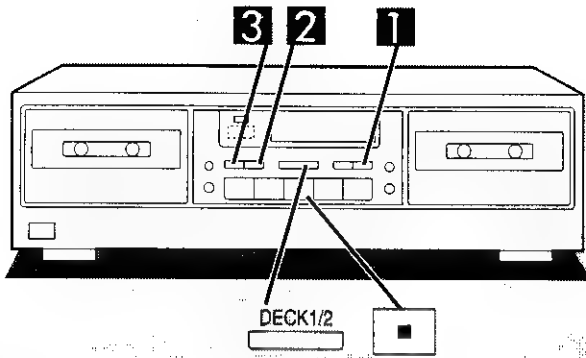
## Tape-to-tape recording

Use Deck 2 to record the sound being played back on Deck 1.

### Preparation

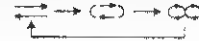
Load tapes which have been advanced to the end of the leader tape into both decks.

**Deck 1:** For playback      **Deck 2:** For recording



### 1 Press REVERSE MODE to select the desired reverse mode.

Each time the button is pressed, the indicator will change in the order:



→ : Only one side of the tape will be recorded, and then operation will automatically stop.

↔ : Both sides of the tape (first the forward side and then the reverse side) will be recorded, and then operation will automatically stop.

If the recording tape is longer than the playback tape, the playback tape will be played repeatedly as many as eight times until the recording tape is finished.

↔ : Both sides of the tape (first the forward side and then the reverse side) will be recorded once, and then operation will automatically stop.

### Note

To record on only one side of the tape, set the tape side indicators (< or >) on Deck 1 and Deck 2 in accordance with the tape sides to be played back and recorded.

To record on both sides of the tape, set the tape side indicators on both Deck 1 and Deck 2 to the forward side (>).

### 2 Press SPEED to select the recording speed.

Each time the button is pressed, the indicators will change in the order: NOR → HI → off.

**NOR:** normal speed

**HI:** approx. double speed

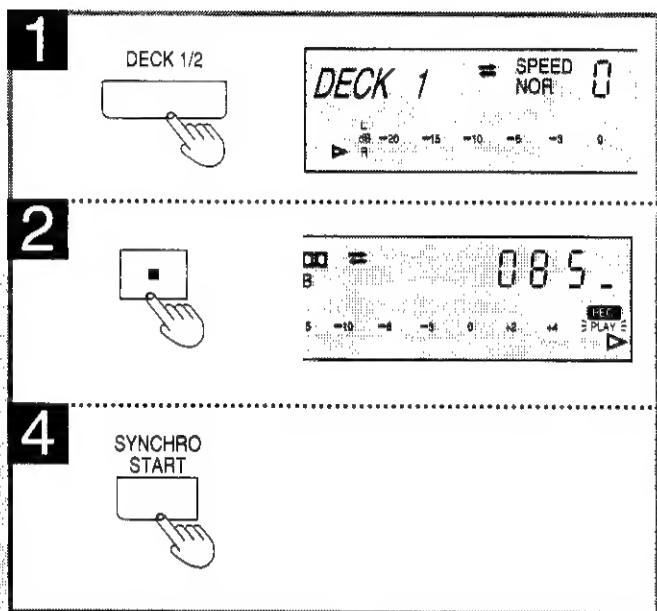
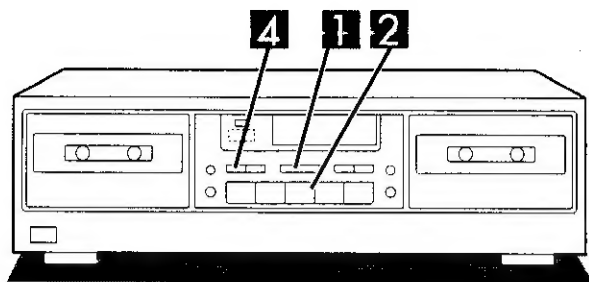
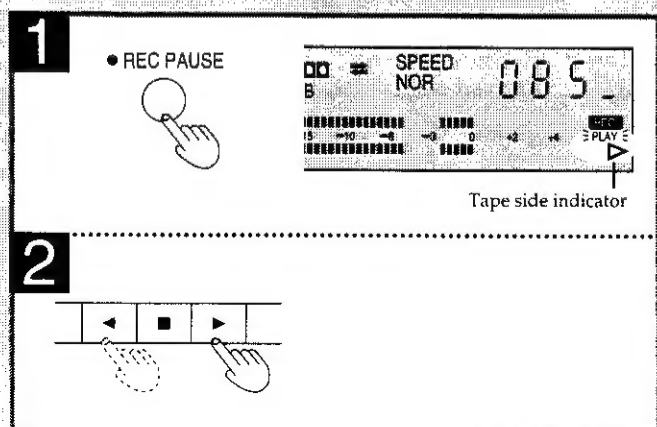
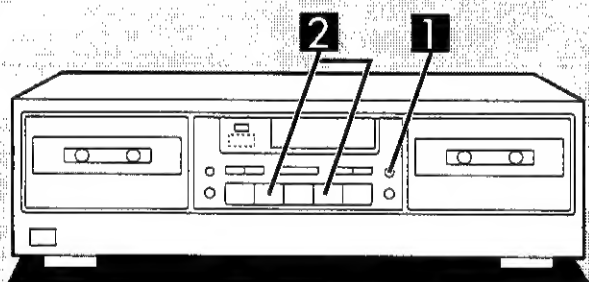
### 3 Press SYNCHRO START. (Recording will begin.)

### To stop recording

1. Press DECK 1/2 to select the Deck2.
2. Press ■.

### Note

In order to avoid operation errors later, be sure to switch off the SPEED button (the "NOR" and "HI" indicator will go out) after the tape-to-tape recording has finished.

**A****B**

### Tape-to-tape recording

#### To record selected tracks **A**

- 1** [During recording]  
Press **DECK 1/2** to select the Deck 1.
- 2** Press **■**  
Deck 1 will stop, and Deck 2 will record a 4-second silent interval and then enter the recording standby mode.
- 3** Operate Deck 1 to find the track you wish to record.  
It is also possible to change the playback tape at this time.
- 4** Press **SYNCHRO START**.  
(Recording will resume.)

#### To cut unwanted parts during recording **B**

- 1** [During recording]  
Press **● REC PAUSE**.  
Deck 2, which was recording, will enter the pause mode, and Deck 1 will continue playback.  
(If you were recording at hi-speed, Deck 1 will change to normal speed while Deck 2 is on pause, but will return to hi-speed when you resume recording.)
- 2** [When Deck 1 reaches a part you wish to record]  
Press either **◀** or **▶**, corresponding to the side of the tape side indicator which is lit.

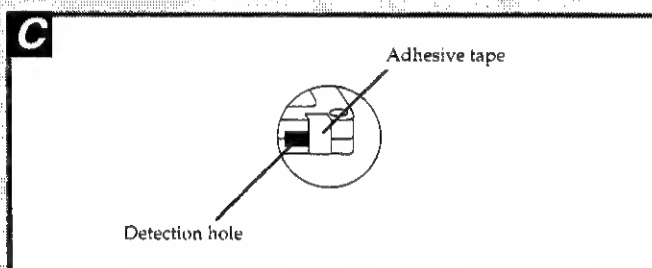
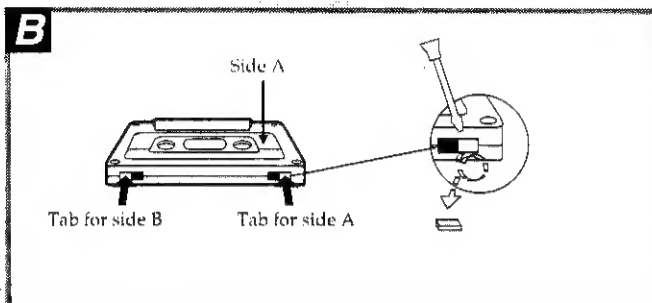
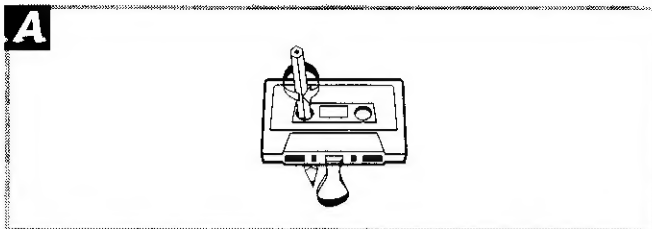
(Deck 2 will resume recording.)

#### For your reference:

- The Dolby effect will be recorded as they are on the tape being played back.
- Because the signal being recorded from Deck 1 onto Deck 2 does not pass through the amplifier, it is possible to change the setting of the amplifier's input selector during recording in order to listen to some other sound source.

#### Note

- When recording with the recording speed set to hi-speed, noise interference may be recorded onto the tape if there is a television set nearby, so make the recording in a location separated from the television set or switch off the television set during recording.
- Noise reduction does not work during playback of tape-to-tape recordings. If the tape was recorded with noise reduction, listen at low treble. Lower the treble with the amplifier's treble control before playback.



## Concerning cassette tapes

### Selection of cassette tapes

Tapes can get caught on the capstans. Use caution with the following types of tapes.

#### Cassette tapes exceeding 100 minutes

Tapes are made of a thin film material. Do not repeatedly advance and stop the tape, fast-forward it or rewind it.

#### Endless tapes

For this unit, it is recommended to use the tape which is appropriate to the auto reverse mechanism.

Always read the instructions provided with your tapes.

### Tape slack

Tape slack may cause the tape to break

### Erasure prevention

Remove the tabs with a screwdriver or a similar object. **B**

To re-record on a protected cassette, cover the slot with adhesive tape. **C**

Do not cover the detection holes on high position and metal tapes.

### To make blank tapes

1. Insert the recorded tape into deck.
2. Press DOLBY NR so that the Dolby NR indicator is off.
3. Press REVERSE MODE to select reverse mode.
4. Press ● REC PAUSE.
5. Press ◀ or ▶, whichever side you want to erase.

### Storage precautions

Do not place or store tapes in the following places.

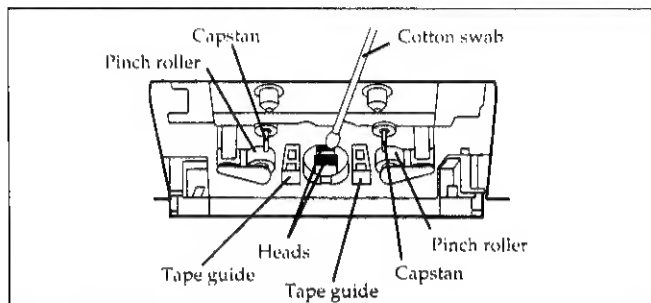
- In high temperature (35°C or higher) or high humidity (80% or higher) areas.
- In a strong magnetic field (near a speaker, on top of a TV, etc.) This can erase a recording.
- Locations exposed to direct sunlight.

## Maintenance

### Head care

To assure good sound quality for recording and playback, be sure to clean the heads after approximately every 10 hours of use.

- 1) Press OPEN to open the cassette holder.
  - 2) Switch off the power of the cassette deck.
  - 3) Clean the heads, pinch roller and the capstan shaft with a cotton swab (or with a soft, lint-free cloth) slightly moistened with isopropyl alcohol.
- Do not use any solution other than alcohol for head cleaning.



### Maintenance of external surfaces

To clean this unit, use a soft, dry cloth.  
 If the surfaces are extremely dirty, use a soft cloth, dipped into a soap-and-water solution or a weak detergent solution.  
 Wring the cloth well before wiping the unit.  
 Wipe once again with a soft, dry cloth.  
 Never use alcohol, paint thinner, benzine, nor a chemically treated cloth to clean this unit.  
 Such chemicals may damage the finish of your unit.

## Technical specifications

### ■ CASSETTE DECK SECTION

Deck system	Stereo cassette deck
Track system	4 track, 2 channel
Recording system	AC bias
Bias frequency	80 kHz
Erasing system	AC erase

#### Heads

DECK 1	Playback head (Permalloy)×1
DECK 2	Recording/Playback head (Permalloy)×1
	Erasing head (Double-gap ferrite)×1

#### Motors

DECK 1	Capstan/Reel table drive (DC servo motor)×1
DECK 2	Capstan/Reel table drive (DC servo motor)×1

Tape speed 4.8 cm/s (1-7/8 ips)

Wow and flutter 0.18% (WRMS)

#### Fast forward and rewind times

Approx. 120 seconds with C-60 cassette tape

#### Frequency response (Dolby NR off)

TYPE I (NORMAL)	40 Hz-14 kHz, ±3 dB
	20 Hz-17 kHz (DIN)
TYPE II (HIGH POSITION)	40 Hz-14 kHz, ±3 dB
	20 Hz-17 kHz (DIN)
TYPE IV (METAL)	40 Hz-15 kHz, ±3 dB
	20 Hz-18 kHz (DIN)

S/N (signal level=max recording level, HIGH POSITION type tape)

NR off	54 dB (A weighted)
Dolby B NR on	64 dB (A weighted)
Dolby C NR on	72 dB (A weighted)

#### Input sensitivity and impedance

REC (IN) 500 mV/47 kΩ

#### Output voltage and impedance

PLAY (OUT) 500 mV/500 Ω

### ■ GENERAL

#### Power supply

For Australia and N.Z.	AC 50 Hz, 230-240 V
For others	AC 50 Hz/60 Hz, 110 V/127 V/220 V/230-240 V

#### Power consumption

For Australia and N.Z.	18 W
For others	21 W

Dimensions (W×H×D)

430×136×286 mm

Weight

3.8 kg

#### Note:

Specifications are subject to change without notice.

Weight and dimensions are approximate.



## Troubleshooting guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the reme-

dies indicated in the chart do not solve the problem, refer to the directory of authorized service centers (enclosed with this unit) to locate a convenient service center, or consult your Technics dealer for instructions.

Reference pages indicated in black circles. (For example: 14)

Problem	Probable cause(s)	Suggested remedy
Tape moves but no sound is heard.	The input selector of the amplifier is not set to the "TAPE" position.	• Set to the "TAPE" position.
Previously recorded sound has not been erased.	Erase head is dirty.	• Clean the head. (14)
Sound output is hoarse or unsteady.	Heads are dirty. Tape is damaged.	• Clean the heads. (14) • Try operation with a new cassette; if there is no problem with the cassette, discard the damaged cassette.
Poor sound quality (especially in the high treble and low bass ranges).	The correct Dolby noise-reduction mode is not set.	• Set to the correct mode. (6 7)
Sound is low, poor tone, intermittent sound, noise.	Heads, capstan and/or pinch roller are dirty or tape is damaged.	• Clean the heads, capstan and/or pinch roller, or try a new cassette. (14)
There is a lot of noise, and the treble is drowned out.	The heads have been magnetized.	• Demagnetize the heads with a commercially sold magnetic eraser.
A "hum" noise is heard during tape playback or recording.	This unit is placed too close to receiver, amplifier or tuner.	• Leave as much space as possible between the units, or place them where there is the least amount of "hum".
Recording is not possible.	One of the tape-to-tape recording-speed indicators is illuminated.	• Switch OFF whichever tape-to-tape recording speed indicator is illuminated (by pressing the SPEED button). (11)
TV noise is accidentally recorded.	This unit is placed near a TV.	• Try placing this unit further away from a TV.